

REMARKS

By this Amendment, claims 2, 8 and 13 have been amended, and claim 18 has been cancelled. Accordingly, claims 2-6, 8-14 and 19 are pending in the present application.

Applicant wishes to thank the Examiner for the indication of allowance of claim 19. Applicant respectfully submits, however, that each of claims 2-6 and 8-14 are also patentable over the art of record as described below.

Claims 2-4 and 8-14 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,590,878 to Uchida et al. (Uchida '878) in view of U.S. Patent No. 6,532,364 to Uchida et al. (Uchida '364). Applicant respectfully traverses these rejections.

Claims 2-6 and Claims 8-12

Among the limitations of independent claims 2 and 8 which are neither disclosed nor suggested in the prior art of record is a wireless local loop access network which includes a memory which is readable by the base station controller and which:

“stores a first identifier used for identifying a subscriber in an interface protocol between said wireless local loop access network system and said public switched telephone network, a second identifier used for identifying a subscriber in a radio-signal interface protocol in said wireless local loop access network system, and data about correspondence between said first and second identifiers so as to eliminate a need for said public switched telephone network to separately determine whether said subscriber is connected to said wireless local loop access network system through said radio-signal interface protocol.”

Because the memory included in the wireless local loop access network system stores data about correspondence between the first and second identifiers, the present invention eliminates the need for the public switched telephone network to take into consideration whether a subscriber is connected to the wireless local loop access network

system through a radio interface. See Page 7, lines 15-23. This also eliminates the need for the system of the present invention to connect to additional external devices such as home location registers (HLR's) and authentication centers (AC's), thereby reducing the number of network resources needed. See page 4, lines 6-13.

Uchida '878 does not even address the same problem as the present invention. While Uchida '878 is directed to a mobile communications system, is merely directed to a system that is capable of using both CDMA and TDMA signals while allowing for the sharing of time slots and frequencies for each of these two types of signals. Uchida '878 merely teaches that the memory is used to facilitate communication between the base station and the wireless local loop, and these communications are only via CDMA and/or TDMA. See Column 10, lines 61-63 of Uchida '878. As described in Uchida '878 at column 12, lines 27-48, the memory 67 used in the mobile switching center 5 is merely used to transfer information about a magnitude of the transmission power or an assigned time slot so as to access the target base station so as to not cause interference between the CDMA and TDMA signals.

Thus, the memory 67 disclosed in Uchida '878 does not store data about correspondence between said first and second identifiers so as to eliminate the need for the public switched telephone network to separately determine whether the subscriber is connected to the wireless local loop access network system through the radio-signal interface protocol, as required by independent claims 2 and 8.

Uchida '364 does not remedy any of the deficiencies of Uchida '878. Uchida '364 is directed to a mobile communications system which adjusts for deficiencies in a hand-over process when a mobile station switches between radio base stations connected to a public network. These communications, however, are only via CDMA and TDMA protocols. See column 11, lines 18-28. In particular, Uchida '364 uses serial numbers provided by a mobile

switching center to perform the hand-over process between two adjacent base stations that are in communication with a mobile station.

There is simply nothing within Uchida '364 which addresses the problem of the need for the public switched telephone network to separately determine by which protocol the subscriber is connected to the wireless local loop access network system. The memory 98 shown in Fig. 5 of Uchida '364 merely includes registration information relating to the mobile stations which are managed by the mobile switching center. See Uchida '364 at column 13, lines 52-59. Thus, Uchida '364 neither teaches nor suggests that the memory stores data about correspondence between said first and second identifiers so as to eliminate the need for the public switched telephone network to separately determine whether the subscriber is connected to the wireless local loop access network system through the radio-signal interface protocol, as required by independent claims 2 and 8.

Therefore, even if one were to combine the teachings of Uchida '878 and Uchida '364, one would not arrive at the present invention as defined in independent claims 2 and 8. At best, the combination of Uchida '878 and Uchida '364 would result in a system that allows communications in CDMA and TDMA protocols while allowing for the sharing of time slots and frequencies for each of these two types of signals, and using serial numbers provided by a mobile switching center to perform the hand-over process between two adjacent base stations that are in communication with a mobile station. In view of the teachings of Uchida '878 and Uchida '364, it is clear that they are simply not directed to, nor capable of addressing the same problems as that of the presently claimed invention. Accordingly, it is respectfully submitted that independent claims 2 and 8 patentably distinguish over the art of record.

Claims 3-6 depend either directly or indirectly from independent claim 2 and include all of the limitations found therein. Claims 9-12 depend either directly or indirectly from independent claim 8 and include all of the limitations found therein. Each of these

dependent claims include additional limitations which, in combination with the limitations of the claims from which they depend, are neither disclosed nor suggested in the prior art of record. Accordingly, Claims 3-6 and 9-12 are likewise patentable.

Claims 13-14

Among the limitations of independent claim 13 which are neither disclosed nor suggested in the prior art of record is a method of operating a wireless local loop access network system which includes:

“transmitting and origination message in a radio protocol to said base station controller through said base station when a subscriber hooks a terminal off”,

“accessing said data stored in said memory to obtain an address in a public switched telephone network protocol based on said origination message” and

“transmitting a first message together with said address in said public switched telephone network protocol to said public switched telephone network so as to eliminate a need for said public switched telephone network to separately determine whether a subscriber is connected to said wireless local loop access network system through said radio protocol.”

As described above, there is nothing within Uchida '878 and/or Uchida '364 which teaches or even remotely suggests that a first message is transmitted in the public switched telephone network protocol along with the address obtained from the memory to the public switched telephone network so as to eliminate a need for the public switched telephone network to separately determine whether a subscriber is connected to the wireless local loop access network system through the radio protocol. Accordingly, it is respectfully submitted that independent claim 13 patentably distinguishes over the art of record.

Claim 14 depends directly from independent claim 13 and includes all the limitations found therein as well as additional limitations which, in combination with the

limitations of independent claim 13, are neither disclosed nor suggested in the prior art of record. Accordingly, claim 14 is likewise patentable.

In addition, in numbered paragraph 2 of the March 11, 2004 Office Action, the Examiner had crossed-out the references listed in the Information Disclosure Statement submitted on August 21, 2002 and had not considered them apparently because a copy of the listed references were missing. Applicant had submitted a copy of the references along with the original submission on August 21, 2002, and is unsure as to why they were not provided to the Examiner. Applicant again submits herewith the Information Disclosure Statement of August 21, 2002, along with a copy of the references cited therein. Accordingly, Applicant respectfully requests that the Examiner consider these references and return an initialed copy of the PTO/SB/08A Form with the next communication on this application.

In view of the foregoing, favorable consideration of the amendments to claims 2, 8 and 13, and allowance of the present application with claims 2-6, 8-14 and 19 is respectfully and earnestly solicited.

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Respectfully submitted,

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